

WHAT IS CLAIMED IS:

5 1. A system for ordering parts, submitting warranty claims, and obtaining product and repair information for aviation parts, for internal users and external customers, to improve communication and customer satisfaction, said system comprising:

a device;

a server system which includes a plurality of servers and secured based on pre-determined criteria, said server system connected to said device and configured to receive information from a user via said device, said server system further configured with at least one of an Online Spare Parts Module, an Online Product Support Module, an Online Overhaul Communication Module, an Online Warrant Module, and an Online Component Repair Module;

a centralized database, said server system configured to be coupled to said device and said centralized database, said server system further configured to:

access at least one of an Online Spare Parts Module, an Online Product Support Module, an Online Overhaul Communication Module, an Online Warranty Module, and an Online Component Repair Module, all modules located on a plurality of servers of the aviation parts and repair system;

receive aviation parts and services information after the user has been authenticated by the system based on pre-determined criteria;

update the centralized database with the aviation parts and services information;

receive an inquiry from a customer to obtain the aviation parts and services information after the customer has been authenticated by the system based on pre-determined criteria; and

retrieve the aviation parts and services information from the centralized database in response to the inquiry.

2. A system according to Claim 1 wherein said server system configured with the Online Spare Parts Module further provides with a searchable online catalog for spare parts and allows users to order spare parts and obtain information on parts orders.

3. A system according to Claim 2 wherein said Online Spare Parts Module is further configured with an order manager, said order manager further configured with a customizable user interface including at least one of a full searchable catalog user interface, an order submission user interface, an inventor availability user interface, an order tracking and account status user interface, an order approval user interface, an order fulfillment user interface, an account-specific pricing user interface, and saved order templates.

4. A system according to Claim 3 wherein said searchable catalog is configured with lead time, part availability, alternative parts, whether the part has superceded other parts, whether or not that part has been superceded by other parts, and the part's history.

5. A system according to Claim 1 wherein said Online Product Support Module further configured with technical documentation including service bulletins, an illustrated parts catalog, engine shop manuals, standard practices manuals, engine data submittals, fleet highlights, and graphical reports configured to chart responsiveness to customer needs, said technical documentation configured to be user customized thereby only allowing access to technical documentation for engines and parts which that user already owns.

6. A system according to Claim 1 wherein said Online Overhaul Communication Module further configured with:

information on a customer's overhaul jobs once engines have been submitted to the repair shop; and

information on engineer engine analysis, an engine receipt report, digitized photos of defective parts, a missing-at-incoming report, an initial cost estimate report, and an initial findings report, all related to overhaul jobs.

5 7. A system according to Claim 1 wherein said Online Warrant Module configured to:

allow users and repair shops to submit warranty claims; and

view claim information, the claim information being access limited b customer.

10 8. A system according to Claim 1 wherein said Online Component Repair Module further configured with an online catalog, a repair order status, contact information for receipt of customer E-mail, and links to web sites of shippers, said online catalog configured to allow a user to view what repair services are offered for particular parts, a return time for the repair, a description of the repair, customer customized pricing information for a contemplated repair and information regarding
15 newly developed repairs and said repair order status configured to allow a user to view at least one of order numbers, open orders, shipped orders, orders for a particular time period and all orders for a particular part number.

20 9. Apparatus for ordering parts, submitting warranty claims, and obtaining product and repair information for aviation parts, for internal users and external customers, to improve communication and customer satisfaction, said apparatus comprising:

a client system;

25 a server system which includes a plurality of servers and secured based on pre-determined criteria, said server system connected to said client system and configured to receive information from a user via said client system,

a centralized database, said server system coupled to said client system and said centralized database by a communication link, said apparatus further comprising:

an Online Spare Parts Module that provides customers with a searchable online catalog for spare parts;

an Online Product Support Module that provides online technical documentation for engines and parts which customers already own, including valuable information such as service bulletins, an illustrated parts catalog, engine shop manuals, standard practices manuals, engine data submittals, and fleet highlights;

an Online Overhaul Communication Module that allows customers to obtain information on their engine overhaul jobs once the engines have been submitted to the repair shop including a detail description relating to the type of service required;

an Online Warranty Module that allows customers and repair shops to submit warranty claims and view claim information online; and

an Online Component Repair Module that provides an online catalog and a repair order status configured with search capabilities by part number and key words.

10. Apparatus in accordance with Claim 9 wherein the communication link is at least one of a wide area network, a local area network, an intranet and the Internet; said apparatus further configured with a Security Module capable of providing with the access only after the customers are authenticated based on previously stored profiles.

11 A method for the automation of parts ordering, warranty claim
submission, and dissemination of product and repair information for aviation parts,
using an Aviation Parts and Services System to improve communication and customer
satisfaction, the system including at least one server, a centralized database, and at
least one client system, said method comprising the steps of:

accessing at least one of an Online Spare Parts Module, an Online
Product Support Module, an Online Overhaul Communication Module, an Online
Warranty Module, and an Online Component Repair Module, all modules located on a
plurality of servers of the aviation parts and repair system;

receiving aviation parts and services information after the user has
been authenticated by the system based on pre-determined criteria;

updating the centralized database with the aviation parts and services
information;

receiving an inquiry from a customer to obtain the aviation parts and
services information after the customer has been authenticated by the system based on
pre-determined criteria; and

retrieving the aviation parts and services information from the
centralized database in response to the inquiry.

12. A method according to Claim 11 wherein said step of accessing
at least one of an Online Spare Parts Module, an Online Product Support Module, an
Online Overhaul Communication Module, an Online Warranty Module, an Online
Component Repair Module, further comprises the steps of:

accessing the Online Spare Parts Module which provides a searchable
online catalog for spare parts; and

allowing the users to order spare parts and obtain information on parts
orders.

13. A method according to Claim 12 wherein said step of accessing the Online Spare Parts Module further comprises the steps of:

accessing an order manager wherein a fully searchable catalog presented to the user only after the user profile has been validated based on the pre-determined user criteria; and then further

accessing a customizable user interface including at least one of the fully searchable catalog, an order submission user interface, an inventory availability user interface, an order tracking and account status user interface, an order approval user interface, an order fulfillment user interface, an account-specific pricing user interface and saved order templates.,

14. A method according to Claim 13 wherein said step of accessing the fully searchable catalog further comprises the step of accessing at least one of a part lead time, part availability, alternative parts, whether the part has superseded other parts, whether or not that part has been superseded by other parts, and the part's history.

15. A method according to Claim 11 wherein said step of accessing at least one of an Online Spare Parts Module, an Online Product Support Module, an Online Overhaul Communication Module, an Online Warranty Module, an Online Component Repair Module, further comprises the step of accessing the Online Product Support Module which includes at least one of technical documentation including service bulletins, an illustrated parts catalog, engine shop manuals, standard practices manuals, engine data submittals, fleet highlights, and graphical reports configured to chart responsiveness to customer needs, the technical documentation being user customized thereby only allowing access to technical documentation for engines and parts which that user already owns.

16. A method according to Claim 11 wherein said step of accessing at least one of an Online Spare Parts Module, an Online Product Support Module, an

Online Overhaul Communication Module, an Online Warranty Module, an Online Component Repair Module, further comprises the step of accessing the Online Overhaul Communication Module which includes information on a customer's overhaul jobs once engines have been submitted to the repair shop.

5 17. A method according to Claim 16 wherein said step of accessing the Online Overhaul Communication Module further comprises the step of accessing at least one of an engineer engine analysis, an engine receipt report, digitized photos of defective parts, a missing-at-incoming report, an initial cost estimate report, and an initial findings report.

10 18. A method according to Claim 11 wherein said step of accessing at least one of an Online Spare Parts Module, an Online Product Support Module, an Online Overhaul Communication Module, an Online Warranty Module, an Online Component Repair Module, further comprises the steps of:

15 accessing the Online Warranty Module configured to allow users and repair shops to submit warranty claims; and

 viewing claim information, the claim information being access limited by the customer.

20 19. A method according to Claim 11 wherein said step of accessing at least one of an Online Spare Parts Module, an Online Product Support Module, an Online Overhaul Communication Module, an Online Warranty Module, an Online Component Repair Module, further comprises the step of accessing the Online Component Repair Module which includes at least one of an online catalog, a repair order status, contact information for receipt of customer E-mail, and links to web sites of shippers, the online catalog configured to allow a user a user to view at least one of
25 what repair services are offered for particular parts, a return time for the repair, a description of the repair, customer customized pricing information for a contemplated repair and information regarding newly developed repairs and repair order status

configured to allow a user to view at least one of order numbers, open orders, shipped orders, orders for a particular time period and all orders for a particular part number.

- 5 20. A method according to Claim 11 wherein the server system and at least one client system are connected via a network, and wherein the network is one of a wide area network, a local area network, an intranet and the Internet.

2006-07-26